

[Substitute specification for U.S. application 10/814,813 – clean copy]

**METHOD OF ENLARGING A TRAVEL OF PIEZOELECTRIC SENSOR  
AND MEMS SWITCH EMPLOYING THE SAME**

**BACKGROUND OF THE INVENTION**

**1. Field of the Invention**

The present invention relates to a MEMS switch employing a piezoelectric sensor, and more particularly, to a method of enlarging a travel of a piezoelectric sensor and a MEMS switch employing the enlarged travel of a piezoelectric sensor.

**2. Description of the Related Art**

Conventionally, a micro-electromechanical systems (MEMS) switch can be classified by means of an employed actuator into four types, such as dynamo-electrostatic, thermal expansion, dynamo-electromagnetic and piezoelectric types, and by means of a switching direction into two types, such as vertical contact and lateral contact types.

Firstly, the dynamo-electrostatic type of MEMS switch uses a curved surface electrode type or comb drive type. This kind of switch is mostly developed nowadays. This type of MEMS switch employs the principles that two electrodes are contacted when different polarity of voltages are applied to the two electrodes